

DEVELOPMENT OF A NETLIKE (RETICULAR) AS PARADIGM FOR DIGITAL CITIZENSHIP IN A MULTI-CULTURAL SOCIETY

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Abstract.- This project approaches, from the perspective of the field Science, Technology and Society, the need that a “network and risk society” shows for developing a netlike ethics-based citizenship paradigm. This concept of digital citizenship is based on the social appropriation of technology, the impact of technology on society, the fourth generation of human rights, digital inclusion policies, and the development of e-Governance. By netlike (reticular) ethics we mean a pragmatic and axiological system without a steady hierarchy of values or a transcendental set of values. Values act like nodes in a variable-geometry network, and vary as a function of decision-making processes. In the context of an intercultural society in which a diversity of value-systems and conceptions of good have to coexist, a netlike ethics proves to be useful in answering some ethical and axiological problems related to responsibility, solidarity, equity, and sustainability. This is the root of a cosmopolitan ethics in a global, complex world. A network society needs an ethics with a similar topology, in order to fostering the development of new dynamics of knowledge and ethical vectors. The main target of this project is the development of a digital citizenship paradigm based on the aforementioned model.

Keywords.- *reticular ethics, applied ethics, digital citizenship, human rights, cyberculture*

Do we need a new ethical paradigm for the network society?

This article takes as starting point the following hypothesis: a “network society of information and risk” (M. Castells 2004) and (U. Beck 1998, 2008) have need of developing a paradigm for digital citizenship. This concept of digital citizenship is based on the social appropriation of technology, the impact of technology on society, the fourth generation of human rights, digital inclusion policies, and the development of e-Governance. A second hypothesis states that such a concept of digital citizenship must be grounded on a netlike (reticular) ethical paradigm. This paradigm matches the nature of pluralistic, intercultural societies whose cooperative systems are not based upon a unified conception of good or a widely shared transcendental set of values. This reticular paradigm is considered within the framework of this article as a non-hierarchical, non-relativistic, polycentric, and variable-geometry model.

Former studies led us to think that this model can respond to a variety of ethical and axiological problems related to responsibility, solidarity, equity, interculturalism, and sustainability. Kwame A. Appiah (2006) has highlighted the fact that all the people we know about and have an influence on are human beings, and we have responsibilities to them. This is the root of a cosmopolitan ethics in a global, complex world. Therefore, the idea of a cosmopolitan ethics must be grounded on a responsible cosmopolitanism. In order to do so, new

dynamics of knowledge and new analyses of netlike ethical vectors. The way we suggest here is the developing what we called third of fourth generation netlike (reticular) ethics (Bustamante 2001, 2007, 2010a); Queraltó (2002, 2003, 2008) for building a paradigm for digital citizenship.

Netlike (reticular) ethics as a requirement for an intercultural network society of face-to-face and virtual interactions.

In a classic environment of face-to-face interactions among human beings (citizenship as belonging to the same territory), ethics can find well-defined models based on presence and shared values. The problem lies in the fact that citizenship is not necessarily based on sharing a common physical space. Not even human interactions are conditioned to physical presence. A system of ethics or politics teaching us how to treat our *neighbor* is no longer applicable. The distances are canceled and the territory is deterritorialized by the cyberspace.

Historically, the concept of citizenship has been bound to the concept of physical space, of a shared territory. Aristotle stated that the polis could not extend beyond the reach of the citizens' voice, for its essence was the democratic dialogue manifested at the Agora as a meeting point. There is no community if dialogue is not possible. Other examples can be traced back throughout History. The national states arose in Europe out of processes of political unification fostered by the leverage of the communication technologies of that time, such as the trolley car. No one had the consciousness of being Italian when the path from Venice to Naples was arduously trod by walking or by horse. One could be Venetian or Neapolitan, but not Italian. When the trolley car shortened the distance between the cities, national consciousness started seeming natural. The world is reduced as time is shortened. And this transformation of time into space is much more radical nowadays, due to two fundamental reasons (Bustamante, 2010b):

The first one is broadly known and accepted. Marshall McLuhan created the term global village to refer to this polis in which the dialogue is universal. Little knowledge is, nowadays, hidden from the worldwide public opinion. The telecommunications allow this dialogue, in which the figure of the "prosumer," producer and consumer, appears, at the same time the knowledge flows through the Network. If the voice of the citizens is extended beyond the boundaries of the polis, there is no reason to maintain a wall through which digital flows get past as easily as ghosts go through the walls of Scottish castles. The second reason refers to the qualitative transformation caused by the proliferation of peripheral knowledge within the Network. But, in addition to McLuhan, the most relevant phenomenon is not the possibility of everybody knowing what occurs on the other side of the planet. The novelty is that the situations occur in real time and place. The deed of instantaneously propagating the information of what is happening converts the receptors in spectators. As such, they have a role in the moment of defining or modifying the course of the occurrences.

The paradigm of a netlike ethics marks an very fructiferous path in specialized knowledge transformation, in knowledge decentralization and in citizenship

empowerment. The digital networks demonstrate day by day the relevance of Metcalfe's Law, according to which the value of the content in a network is proportional to the square of the number of its participants. A critical mass with shared knowledge is needed in order to produce this transformation of quantity into quality. In this case, Brian Arthur's *Increasing Returns to Adoption Law* (1989) also applies: the greater the number of participants in virtual communities, the greater is the usefulness and scientific relevance of the information created out of this interaction. However, the lack of a unified concept of good and a widely shared set of values hinders the applicability of a hierarchical, monocentric paradigm.

Finally, we should go beyond the value of the shared knowledge. As stated by P. Jollivet (2004), we are dealing with deeper processes, which refer to the socialization of innovation processes. Participation in the digital networks is a creative exercise of digital citizenship. The adoption of the procommons practices in the network transforms those who adopt them, as well as the tools being used, and the network's content. Nothing remains as it was before. The same role that some recover when controlling their own body and the processes produced therein can be applied to other fields of citizenship exercise. The returns of use are, as defended by Jollivet, increasing in a radical sense, for they are the expression of the volunteer cooperative work's capacity of innovation. The expansion of these communicative practices to all areas of life supposes, definitely, advancing towards the individual retaking of the biopower sphere (Bustamante, 2010b). This is one of the facets that show the relationship existing among digital networks, digital citizenship, the netlike ethical paradigm we propose in this article.

Originality and foreseeable impact of the netlike ethics proposal

The netlike ethics model was mainly proposed and developed by Prof. Ramón Queraltó as an original reflection on the risks and possibilities available for the development of human condition in a technological society. Within the tradition of Science, Technology and Society studies, he picks up the thread pointed out by thinkers such as J. Ellul, H. Jonas, P. Virilio and L. Winner, in order to give a new approach to the problem of ethical and epistemic dimensions that characterize a society in constant change where technology plays the role performed by science in Modern Age as culture builder. He deals with the problem of how to moralize today's global and intercultural society by introducing ethical vectors into everyday life. He questions some of the starting points of ethical theory by stressing dialogue with reality, the acceptance of circumstance as a basic element of human action and the recognition of the need of human rights as a necessary expression of practical philosophy.

Retrieving an ethical idea closer to human happiness and fulfillment, Queraltó firstly proposes to rethink on the circumstances in which modern man develops his life, accepting as an accomplished fact the pragmatic paradigm which defines modern man. Thus, the need to rethink on our human condition —so that when it is acknowledged as such it can be respected— enables an ethical discourse on the introduction of individual rights and ethical vectors in an era in which technology appears as an essential condition of possibility and as a

defining feature of our society. Even though we live in a new era, we still lack from the categories that allow us to orient ourselves in the world from an existential point of view. Inherited ideas have become obsolete, and transition implies a continuous attempt of new epistemologies to report reality. Economic globalization as well as ideological and symbolic globalization, transition from information society to knowledge society, world integration by means of global spread of the mass media, and multiculturalism phenomena caused by migration show the need for a new ethical paradigm.

Secondly, technology —or more appropriately, technoscience— generates its own rationality which will act as a paradigm for the understanding and assessment of all aspects of reality. This new form of culture stands out because of its complexity as social and ontological category, and the preeminence of information and knowledge. This is a new view of the world characterized by the preeminence of scientific knowledge, the global power of the technique, and the spread to all spheres of human activity of the so-called technological rationality. This rationality was already advanced by the Frankfurt School writers, who highlighted the preeminence of the so-called instrumental rationality, consisting of an investment of ends and means. Technological rationality is a new step in the evolution of the instrumental rationality, and it is characterized by the fact that function as a fundamental feature adds value on facts and actions. It is not necessary to know the structure if the function is known, and the practical feature gets a privileged position as opposed to theoretical foundation. It is a society whose aims are outlined by the media (competition, optimization, controllability), and operational efficiency. The classical question "What is it?" end giving way to "What if it for?" Theoretical truth would not be eliminated, but subordinated to a utility factor, a pragmatic truth.

Thirdly, the usual ethical problems still remain within the framework of this paradigm, but typical answers can only be propaedeutic —they can show us the path of good thinking, but they are obviously insufficient. The problem is now as follows: How can we promote ethical vectors in a world where power is increasingly concentrated and away from the traditional political institutions in a society where the value of efficiency and functionality is at its most, and it is used as the measuring stick to judge most of human actions? Netlike ethics is apparently a pragmatic thesis looking for the best way to introduce new values in a society dominated by technological rationality. As far as technology is concerned, ethics appear as an extrinsic element of control, opposing the technological system which denounces its excesses and blocks its development path.

Netlike ethics —like Queraltó's paradigm of "reverse Trojan horse"— states that the best way to introduce ethical vectors in society is by proving its suitability for technological rationality —the paradigm of knowledge society. If we applied this strategy to the promotion and defense of human rights, we would witness that a society unwilling to accept restrictions on their power may accept values that are not introduced only by the goodness of its postulates, but by its contribution to the effectiveness and its own internal balance. Consequently, the size of the operational efficiency criterion as a tool for ethical methodology would stand out. In other words, it would consist on presenting the action of these ethical

vectors as elements which mainly contribute to the effectiveness and balance of a technological society. As a result, the system will not distrust the ethical vectors these rights will introduce since they will not appear confronting them, but aiding its development. Once accepted, they would start to function and produce beneficial effects in the system from the ethical point of view. That is to say that an effort will be made in justifying social justice, solidarity and freedom among its varied realizations because according to the social criterion of operational efficiency it is effective and it will result in greater benefits for different social actors.

This strategy is outlined by the reverse Trojan horse paradigm, since the introduction of ethical vectors and human rights takes place because the system considers it as an asset, as an element that will increase its functionality, and it is reverse because the purpose is not destructive but constructive. The practicality of this strategy and its significant risk could be argued, namely, the instrumentalization of human rights based on a pragmatic criterion of operational efficiency which would distort its fundamental ethical and anthropological dimension. However, a moral reductionism is not intended by defending the appropriateness of solidarity, equal rights and social justice, but an introduction to ethical vectors which would operate within the system and which from an initial stage would not confront the commercial criteria that define our society. Secondly, the philosophical justification of the aforementioned rights in a traditional way would not be excluded at all, but it would be developed at a later stage when the institutional receptivity was higher once its contribution to the purposes of efficiency were proved. Even in dictatorships or regimes against freedom, the rulers themselves can realize that the consequences of not implementing these rights can be much higher in terms of social instability, and they may be tempted to accept these rights and respect them for political convenience, despite not believing in them. Once these rights become part of the citizens' demands, and they are integrated in our daily lives, it will be very difficult to cut them off. Once the rights are a habit, they will easily become law.

When it comes to defending the fourth generation of human rights, it must be remembered that Internet functions in a global environment where the concept of property is not homogeneous. Different societies have different value systems, and also different ethical principles. It is therefore necessary to find a meeting point for negotiation to discuss which are the acceptable forms of behavior in cyberspace, beyond the rigid regulations that could be drawn from an axiological doctrine that would fight tooth and nail to defend the universality of certain values. In fact, if a set of values were clearly universal and applicable to any society at any time and space, it would not be difficult to prove them rationally. However, practice suggests otherwise. Even the Declaration of Human Rights (1948) is regarded by many non-Western cultures as the imposition of local values on others with their Eurocentric claim of universality.

A case study which proves the usefulness of netlike ethics as a starting point for digital citizenship is the current debate over intellectual property and P2P downloads, which is labeled in some countries as "digital piracy." According to supporters of Locke's theory of property, men leave the state of nature —where their rights are neither guaranteed nor protected— and enter a civil state to

defend their right to private property. Locke claimed that property, life, freedom (in the sense of ownership of the body) and the right to happiness are innate human rights. As a legacy of Locke, in liberal ideology there is a strong link between the inalienable right to private property and individual freedom innate human beings get hold of natural resources and materials through their work, and exchange what they thus acquire. If these exchanges are free, transfer of property is legitimate. The defense of private property is one of the sacred obligations of the state. Later, Nozick (1974) —following Friedrich von Hayek— developed his "Entitlement Theory", according to which each person legitimately owns what they get as a result of a legitimate acquisition, from their work or as a free transfer from another person.

For Locke, freedom is a target value based on the enjoyment of private property. Nozick's extreme libertarianism makes him claim that states which get hold of part of that property on a tax basis for purposes other than security and justice break freedom of individuals. From a different idea of property, Hegel considered freedom as a result of extending the concept of political equality that brought about the French Revolution. With no social equity, freedom claimed by liberalism would be meaningless. Therefore, Hegel argued that freedom was not the sacred right to property nor the individual freedom of the liberals —it was not either Kant's moral autonomy, the ability to decide for yourself— but the enjoyment of the objective conditions that enable the self-realization of individuals. It is impossible to find a concept of freedom that can be equally used by all cultures, regardless of the historical moment or their economic and social development.

In this sense, Amartya Sen's (2010) thought is clarifying: we must accept that people are free to vote. If they do not have money to pay for their bus ticket to go to their polling place location, what for is their political freedom? For Sen, it is more important to highlight the value of substantial freedom, meaning the ability to follow the lifestyle that you choose, what you want to do, and which Sen calls "functionings". It is not enough for a society just to be fair by distributing commodities to citizens on an equitable basis. It should also maximize the substantial freedom of these citizens, i.e, it must promote their ability to choose between different types of functionings. To do this, we need to consider indicators that go beyond the production of wealth —quality of life indexes such as the Human Development Index.

There cannot be an agreement on the idea of property in a multicultural society. This means that it will not be possible to find a hierarchical ethics that is accepted by everybody. Quite the contrary, a set of common values derived from very general principles which enable the design of a fair society according with the justice of its procedures should be ran for. Also the concept of value changes: property is what makes a particular decision to be eligible by a rational, transparent and free agent if it is available at a reasonable price. (transparency equals to appropriate knowledge of the causal structure of the decision and the rules of the game on which the decision is taken, and which aims at maximizing the expected consequences of that decision).

Ultimately, talking about ethics in a globalized society also means talking about quality of life issues and access to better conditions for defining our own lives. Real life is more than just biological existence, and it is impossible to consider it

separated from technology. The entry of technology in the realm of ethics, and the entry of ethics in a technical context, is a consequence of the need for translating the ethical discourse in terms that can involve science and technology as elements modifying the space in which human rights manifest, strengthen, and develop. We try to accomplish this goal by a pragmatic acceptance of solidarity, equity and social justice as ethical vectors.

A research agenda: Specific tasks for developing a digital citizenship based on a netlike (reticular) ethics

The development of a paradigm of netlike (reticular) ethics provides a polycentric, intercultural and non-hierarchical scheme of values that can foster knowledge and innovation policies. Furthermore, the establishment of a digital citizenship within the European Union is an essential element for building a common European space. This augmented citizenship is key to uniting a community in which the digital divide coexists with historical differences of a cultural, racial, economical and geographical nature, all of which undermine efforts to carry out an in-depth modernization of the concept of Europe. A research agenda in this area should consider as priority objectives the following ones:

1. Analyzing the impact of a netlike ethics as an ethical paradigm in a particular set of social appropriation of technology dynamics. Namely, Wikileaks, Wikinomics, Free Software and Free Knowledge movements, as well as other forms of popular culture aimed to strengthening of an interconnected public sphere.
2. Studying the development of a digital citizenship as a conscious use of the ICTs impact on democracy, advancing from current forms of representative democracy to a real participatory democracy. This transformation should consider the expansion of a fourth generation of human rights, which includes universal access to information, trans-border diffusion of ideas and beliefs, permanent and free access to cyberspace via open networks and Open spectrum, and finally the right to have a voice in the design of technologies affecting our lives. Studying the isomorphism between the topology of a network society and that of a reticular ethical model, assessing the possibilities of the latter as a base for expanding four-generation human rights.
3. Fostering the promotion of digital inclusion policies of digital inclusion policies, understanding inclusion not only as the mere access and purchase of IT products and services, but as the process of creating a collective intelligence that is a strategic resource to insert a community or a country in a globalized environment. To reach this objective it will be necessary a creative development of electronic governance services approximating the public administration to the citizens.
4. Analyzing the role of a reticular ethical model in the defense of the concept of procommons (common assets), conserving spaces of human development which management is not subject to the rule of market and to the will of financial speculators. Studying the links between the reticular model and Vincent and Elinor Ostrom's model of polycentric economy.

5. Studying the role of a netlike (reticular) ethics in the context of institutional robotics, as a tool for human-machine interface in the framework of a knowledge society.

6. Assessing the applicability of the aforementioned objectives to the European Research Programs as a practical application related to communitarian directives, and elaborating a dossier on recommendations for implementing citizenship as a motor for social innovation having a reticular ethics as an underlying paradigm.

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